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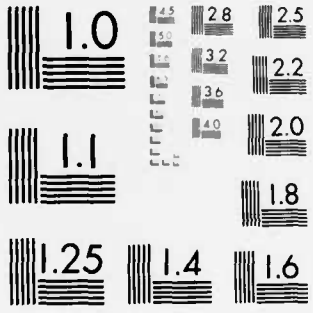

DEPARTMENT OF THE AIR FORCE

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Wright-Patterson Air Force Base, Ohio

UTILIZATION, ADEQUACY, AND IMPROVEMENTS FOR PROGRAM MANAGEMENT TRAINING

Pamela S. McGinty, First Lieutenant, USAF

LSSR 25-83

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Training for program management personnel in the Air Force is a key instrument in preparing members to manage major acquisitions. This thesis examines the forms of training available for personnel in program management both in and out of the Air Force. The major portion of the report examines what training is being utilized, the adequacy of this training, and the improvements that should be made to this training. The information for that part of the report was gathered through interviews with System Program Directors in the Aeronautical Systems Division and the Armament Division. Professional management views of the System Program Directors were also obtained relative to their perceptions of an "ideal" training program for program management personnel. Presentation of the analysis of interview data provides a one-time academic review and summary report for exchange of ideas concerning training for program management personnel.

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UTILIZATION, ADEQUACY, AND IMPROVEMENTS FOR PROGRAM MANAGEMENT TRAINING

A Thesis

Presented to the Faculty of the School of Systems and Logistics

of the Air Force Institute of Technology

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In Partial Fulfillment of the Requirements for the

Degree of Master of Science in Systems Management

By

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CHAPTER I

EDUCATION FOR PROGRAM MANAGEMENT

Since World War II, the whole character of our defense system has changed. Particularly in the area of weapons acquisition, our methods have become very sophisticated. In order to handle the complexities of acquiring multi-million dollar weapons systems, the Air Force implemented the program management concept in the early 1960s. The result was a centralized management authority over all the technical business aspects of major systems acquisitions. The system program office (SPO) was created as a single management organization to deal with a system being developed. A program manager (PM) or program director became the single manager for the SPO. His primary functions include establishing schedules, directing developments and production, and insuring that performance and cost objectives defined by his service and approved by the Department of Defense (DOD) are met. The PM or program director is the agent of the service in the management of the systems acquisition process. As the main focus of authority, he has responsibility for managing and controlling the program. DOD Directive 5000.1 states that,

> The development and production of a major defense system shall be managed by a single individual (program manager) who shall have a charter which provides sufficient authority to accomplish recognized program objectives [4:9].

Ideally, the program manager (PM) assembles a team from various functional areas into a SPO. The SPO will guide a unique weapon system through various phases of the weapon system acquisition process.

The Air Force SPOs are under control of the Air Force Systems Command (AFSC). The mission of the AFSC is to advance aerospace science and technology and to develop and acquire qualitatively superior aerospace systems at the lowest cost (13:188). The AFSC Commander and his staff, the product divisions, the SPO, and the PM are primary players in the acquisition process.

Specifically, Air Force Regulation (AFR) 800-2

> . . . requires the implementing command to be responsible for the program tasks defined in the program management directive (PMD), to appoint a program manager, and to staff a program office as soon as possible after the program starts [13:189].

An implementing command is one who actually controls the development of the system, such as the AFSC with the B-1 program. It also requires delegation of program management authority and responsibility to the PM and notification to HQ USAF before assigning or changing the PM in major systems acquisitions.

The SPO is the PM's office, and it acts as the single point of contact with industry, government agencies, and other agencies involved in the systems acquisition process. The program offices perform certain standard functions including engineering, logistics, test and evaluation, deployment, business management, and configuration management including procurement and manufacturing. In the Reference Text, Managing the Air Force, the various functions of the program office are described. The engineering function involves definition of the requirements to be satisfied; review and evaluation of the contractor's solutions; and assessing the reliability, maintainability, producibility, and human engineering aspects of the weapon system. The logistics responsibility includes making sure the reliability, logistics and maintenance support, and total support costs of the project are adequately considered during design and development. The function of development test and evaluation is of primary concern along with the SPO's active assistance in operational test and evaluation. The business management area is the center for management of the program and for the collection of program costs and funds. The area of configuration management insures that the product being developed matches the one designed and specified. The contracting officer interfaces with the industry to resolve any contractual disputes (13:190).

According to AFR 800-2, the PM or systems program director, program/project manager, or system/item manager is the ". . . single AF manager for a specific phase of the acquisition life cycle [13:189]." The PM's responsibilities include:

1. Management of the acquisition program using the assistance, advice and recommendations of the participating commands. The participating command is that command or commands who are helping and supporting the acquisition effort. For instance, the Strategic Air Command would be a participating command in the acquisition of the F-15 Eagle because they will be using that aircraft for their mission.

2. Making management decisions within the approved program (except operational test and evaluation (OT&E) decisions). The PM's decisions are directive on all participating commands.

3. Assessment and documentation of how proposed changes may alter program progress and objectives.

4. Preparation and issuance of a Program Management Plan (PMP) in consonance with the PMD, as supplemented.

5. Insuring adequate communication and coordination among all program participants.

6. Continually assessing the program's progress versus its objectives, constraints, and thresholds, as well as recommended changes (13:189).

The development of the SPO concept was precipitated by some major problems in acquiring new weapon systems after World War II. One example is the problems associated with obtaining the C-5A transport for the Air Force. The C-5A had huge cost overruns.

> In testimony before the Proxmire Subcommittee on Economy in Government, in November 1968, it was alleged that the C-5A contract had incurred an overrun condition amounting to $2 billion. This revelation precipitated a series of charges and countercharges and eventually led to Congressional Hearings with both the House and Senate Appropriations and Armed Services Committees. The Air Force was criticized for applying the Total Package Procurement contracting methods for the first time to a program of the magnitude of the C-5A effort. Special contract provisions such as the Price Adjustment, Abnormal Economic Fluctuation and Correction of Deficiency clauses, came under additional criticism. Statements were made that raised the question as to whether Lockheed "bought in" on the C-5A program with a *knowingly* low bid. Inuendos were made that Lockheed had received special agreement or special favors with regard to contract terms, including operations. Finally, the charges of "Bail Out" were leveled when the Defense Department offered to settle the $758 million C-5 contract dispute with Lockheed for a $200 million "fixed loss" [11:200].

Two other factors also contributed to the development of the new management philosophy. One factor is the impressive decrease in lag time between the discovery and application of scientific knowledge. A second factor is the great increase in the allocation and expenditure of national resources for research and development. Because of the size of the Defense budget, military managers have been forced to

become leaders in the development of new weapons systems management techniques.

During the missile gap years of the mid to late 1950s, almost no national defense expenditure was too great. The United States and its citizens wanted to have protection against the perceived Communist threat. We did not want to be vulnerable to the Soviet Union or any other country for that matter. Money was poured into the Defense budget with little thought to controlling costs; rather, the emphasis was on having more and better weapons than the Soviet Union.

After the Cuban missile crisis and in the early 1960s, the public mood began to change. Congress and private citizens began to take a closer look at Defense spending. They did not like what they saw. With the election of Lyndon Johnson as President and his implementation of the Great Society Programs, sentiment against the large Defense budget became even greater. Along with Johnson's Great Society Programs, was more concern over social problems such as urban renewal, mass transportation, equal rights, education, air and water pollution, and many others. Coupled with this concern was growing disillusionment with the war in Southeast Asia. The Congress and the public grew very critical of military spending programs in general (5:5).

In the last twenty years, there have been many changes in the area of Defense acquisition management. The

systems have grown more complex, and the whole field of program management has grown more sophisticated. The DOD is very much concerned with adhering to cost and schedule baselines. Program Managers (PMs) are expected to do more with less money. As Major General William Thurman says, Congress is

> . . . looking to the Department of Defense to improve DOD operations through new management methods. Leaders within DOD have taken a number of actions to improve the acquisition process and are looking at initiatives that will lead to additional improvements [6:3].

Desirable Characteristics of a Program Manager

With the growing concern over Defense spending, it would make sense to conclude that the DOD is also concerned about the ability of its PMs to effectively manage these huge acquisition programs. One problem is in deciding exactly what an effective manager is and how to find or develop effective managers. Charles Viall in a paper for the Defense Systems Management College (DSMC) entitled, "Factors Contributing Toward Diverging Definitions of the Effective Project Manager," trys to list some areas of influence: (1) experience, (2) education, (3) technical and management expertise, (4) personality, (5) needs of subordinates, (6) demands of the task, (7) status, (8) climate of the organization, and (9) future promises (17:2).

Additionally, he lists some common characteristics or traits the PMs should possess to be successful. These are:

1. Commitment to project goals
2. Authority and influence
3. Task orientation
4. Human skill
5. Administrative skill
6. Technical skill
7. Early and continued involvement
8. Participation in goal setting and criteria specifications (16:10).

Air Force Manual (AFM) 36-23 suggests four principal considerations for career planning in order to obtain the desirable characteristics of a PM. The officer should be exposed to assignments that provide experience and knowledge in technical, program management, and operational activities. The manual encourages graduate education and completion of professional military service schools. Also, for the development of knowledge in specialized areas, attendance at technical courses is highly recommended. Officers broaden their experience through a series of complementary assignments, academic specialization, graduate education, professional military education, and technical courses. The results of a 1970 survey of ninety AFSC general officers, systems program directors, and key program management personnel indicated a PM:

"1. Should have a breadth of experience. In order of priority, this includes:
"a. Previous SPO experience.
"b. HQ USAF/HQ AFSC staff experience.
"c. Operational experience.
"d. R&D test center or laboratory experience.
"2. Should preferably have at least a BS in engineering. A MS is desirable--preferably a MS or MBA in management.
"3. Should have professional military education through the senior school level.
"4. Should attend a special SPO training course such as the Defense Weapon System Course (predecessor to the Program Management Course of the Defense Systems Management School) [1:8]."

The need for adequate training in the systems acquisition process for those involved has been well documented. In a report done by the AFSC Inspector General (IG) on NONPAR/CAR Programs, the need was definitely highlighted. The report said,

> . . . managers who had attended a formal Systems Program Office (SPO) management course such as the Defense Systems Management School (DSMS) were significantly better in overall performance than those who had not had the training [8:2].

Lieutenant Colonel Edward Roberts, describing the deficiencies of training for our PMs says,

> . . . the training necessary to equip the custodians of this trust with the basic knowledge required cannot be made available to all needing it. The training programs available simply do not have adequate capacity to meet the total training requirement. . . [8:5].

One of the primary concerns involves the fact that some of the major programs such as the F-15, F-16, and the B-1 have well-known program directors who are highly knowledgeable and skilled. The problem stems from the fact that even though

these highly visible programs have experienced program directors, often the smaller dollar programs are given to junior managers who do not yet have adequate training. The result is of course a lot of on-the-job training (OJT) and learning by mistakes. The IG report said that this

> . . . major program manager of the future was given a difficult task that had been made even more difficult because we did not feel we could spare the individual from the job for the time required to attend school or we didn't have the school quota available to give this manager some preparation for the important task of acquiring Air Force weapons systems [8:6].

The report went on to say that PM performance was the "weak link in the chain," and the managers who received formal training in acquisition management performed much better than their counterparts without the benefit of this formal training. In his book, Arming America, J. Ronald Fox says,

> The military officers who are assigned to program management positions are poorly trained to negotiate with industrial contractors and usually fail to have the requisite training and experience in procurement and general business management [8:6].

Because of his dissatisfaction with the present system of training for PMs, Lieutenant Colonel Edward Roberts developed a proposed training system that is a combination of a self-study program, OJT, and classroom instruction. Then Deputy Secretary of Defense David Packard also expressed his dissatisfaction with the performance of PMs on March 9, 1971 before the House Armed Services Committee. Secretary Packard pointed out the need for better training in systems

acquisition. He said,

> . . . a very crucial problem in the past has been that project officers were not doing an adequate job. This resulted from many factors, including assignment of managers who were poorly selected or who lacked proper training for the job. We should give project managers the special training in development and procurement they need in order to do their job properly. . . [8:31].

Research Objectives

The research effort associated with this thesis has four broad objectives:

1. The first objective is to ascertain what training is available to Air Force members in the systems acquisition field.

2. The second objective is, given the training available in systems acquisition management, what training is really being utilized to prepare Air Force members to manage major acquisitions?

3. The third objective is to determine if this training is adequate.

4. The fourth objective is to determine what improvements, if any, should be made to the current training?

Scope and Approach

The first objective concerning what training is available to Air Force members in weapon system acquisition was answered through extensive literature search in the Air Force Institute of Technology (AFIT) library, interviews with

educators, and by searching through various school catalogs. A visit was made to the Defense Systems Management College (DSMC) at Ft Belvoir, Virginia to gather information on that institution's contributions to program management training. While there, the author spoke with Captain Michael A. Pearce, United States Navy (USN), Dean of the DSMC. The author also worked quite closely with Mr. David D. Acker in the Research Directorate who recently completed assembling the official archives for DSMC.

Extensive use was made of the Defense Technical Information Center (DTIC) to gather information from all areas of the DOD relating to training of program management personnel. Further use was made of interviews with AFIT instructors to determine how AFIT contributes to weapon system acquisition training.

The other three objectives, namely of determining what training is actually utilized, determining the adequacy of this training, and determining the improvements, if any, that should be made to this training were addressed through use of personal interviews. The structured format used for these interviews was prepared by the author with help from instructors in the Department of Organizational Sciences at AFIT. The interview format is in Appendix A. The interviews were geared towards the program manager/director. In this paper, a program manager/director is defined as an Air Force

officer in the rank of lieutenant colonel and above who is the head of an entire SPO or in charge of an acquisition program. The interview format was developed to determine the feelings and opinions of Air Force officers who have been in the systems acquisition business for several years. The author believes that they are in a better position to know what training is available and have had more of an opportunity to attend some training courses. Also, from the perspective of systems program directors, they know what courses they recommend or require their subordinates to attend and can lend more of an insight into needed improvements in the training now available.

Because there are many sources of training available for program management personnel, the author did not limit her research to one or two sources. Rather, information on program management training came from the following sources: DSMC, AFIT, the Naval Post-graduate School, the U.S. Army Logistics Management Center, the U.S. Army Management Engineering Training Activity, the Extension Course Institute, Education With Industry, and civilian offerings in program management were included. However, the emphasis was on the DSMC and AFIT because they had the bulk of courses geared towards program management training.

In support of formal education for the PM, Peter Drucker, a well-known management consultant and author, said that, of course, no manager would be able to master all of

the management science skills, but that he needed to know what they were and what they could do for him. Every manager needs basic literarcy with respect to essential managerial skills (16:7). On the other hand, Sterling Livingston, writing for Harvard Business Review, sharply opposed the formal education process. He said that academic achievement is not a valid measure of managerial potential.

> Problem solving and decision making in the classroom require what psychologists call respondent behavior. It is this type of behavior that enables a person to get high grades on examinations, even though he may never use in later life what he has learned in school. On the other hand, success and fulfillment in work demand a different kind of behavior. Finding problems and opportunities, initiating situations, and following through to attain desired results require the exercise of operant behavior which is neither measured by examinations or developed by discussing in the classroom what someone else should do. Operant behavior can be developed only by doing what needs to be done [16:7].

He brings out an important problem with formal education in that problem-solving in the classroom often is dealt with as an entirely rational, systematic process which it hardly ever is. Classroom instruction often requires students to explain and defend their reasoning, not to carry out their decisions or even to plan realistically for their implementation.

Justification for Research

Granted the many problems with the formal education process, it is still a very worthwhile process for training PMs to handle the responsibility of acquiring a major weapon

system. This study will review and critically appraise the formal training available for the Air Force PM in the DOD, as well as outside the military, as it is viewed by the system program directors.

There is a definite on-going concern over the quality of program management education. As recently as December 27, 1982, the Principal Assistant Secretary of Defense (Manpower, Reserve Affairs, and Installations) requested information on the effectiveness of the DSMC compared to similar offerings at AFIT's School of Systems and Logistics. In his reply, Lieutenant Colonel Shaw, instructor at AFIT, made it clear that he could compare the nature of each school's offerings; however, he could not compare the effectivness of AFIT to DSMC. He says, "While AFIT could compare the nature of each school's offerings, this examination makes no attempt to evaluate relative effectiveness [10:1]."

In describing the mission of DSMC, he says it

> . . . exists to educate (DOD) acquisition professionals and to conduct research to support and improve Defense acquisition program management. Their perspective is the major/joint program at the top levels of resource management [10:1].

AFIT's mission is to provide ". . . education to meet Air Force (and some (DOD) requirements in technological and managerial fields [10:1]." There are basic differences between DSMC and AFIT/LS (School of Systems and Logistics). AFIT is mainly for the benefit of Air Force people, while

DSMC has military members and civilians from all the services and from contractors. Lieutenant Colonel Shaw says, "DSMC short courses are designed to reinforce and expand on the experience middle and executive level acquisition managers have acquired in their careers" and ". . . teach relevant DOD issues, processes, initiatives, and expectations [10:1]." AFIT/LS courses focus on Air Force people at ". . . various working levels in logistics, acquisition specialties and contracting" and ". . . offers several series of related courses which progressively expand knowledge and skills development [10:1]."

Currently, AFR 36-1 requires either the twenty-week Program Manager Course at DSMC or the three-week Intermediate Program Management Course (SYS 400) at AFIT for upgrade to the fully-qualified Acquisition Staff Officer (AFSC 2716). AFIT offers a series of three courses (SYS 100, 200, and 400) specifically designed for PMs. The basic introductory course to Program Management is SYS 100. The second course is SYS 200 which is an applications course. The third course in the series is SYS 400 which teaches SPO leadership. In describing AFIT's three-course series, as compared to DSMC's Program Manager Course, Lieutenant Colonel Shaw says

> . . . the AFIT sequence answers AFSC/AFLC needs for people to perform in the Product Divisions, AFALD, or Logistics Centers, while DSMC-PMC-3 answers needs for Air Staff/MAJCOM/Major Program key personnel acquisition education [10:1].

He concludes by saying that DSMC Program Manager Course is

> . . . comprehensive and in-depth in addressing acquisition disciplines (Systems Engineering, ILS, T&E, Contracts, Manufacturing, Funding, and Costs). The DSMC student's exposure to DOD orientation certainly makes this education worthwhile for key personnel assigned to acquisition jobs in the Air Staff, MAJCOM, or Major/Joint Programs [10:1].

The subsequent chapters will describe the training available at DSMC and AFIT in detail. The background and key events that were instrumental in establishing the program management education at these two institutions will be documented. Additionally, the other sources of training such as the Naval Post-graduate School, the U.S. Army Logistics Management Center, the U.S. Army Management Engineering Training Activity, Education With Industry, the Extension Course Institute, and civilian offerings in program management will be highlighted. Finally, the results and conclusions of interviews with system program directors will be presented.

CHAPTER II

SOURCES OF TRAINING

Air Force Institute of Technology (AFIT)

This chapter will deal with the training available for program management personnel. The primary emphasis in this chapter will be on offerings at AFIT and DSMC. It will become obvious why these two institutions receive more attention than the others such as the Naval Post-graduate School and the Army Management Engineering Training Activity (AMETA). The other schools do not have as much to offer in the way of program management education. First, the courses available at AFIT will be examined. However, before delving into the specific courses at AFIT related to program management, a general overview of AFIT would be most helpful. As described by the AFIT 1982-1983 catalog, the

> . . . mission of the Air Force Institute of Technology (AFIT) is to provide education to meet Air Force requirements in scientific, technological, managerial, medical and other fields as directed by HQ USAF [12:2].

Today, in satisfaction of these requirements, the institute performs two closely related services: degree level education and Professional Continuing Education (PCE) and specialized training.

> Both of these services draw upon similar academic resources . . . Professional Continuing Education programs are designed to satisfy specific Air Force and DOD needs for special and advanced knowledge of immediate applicability [12:2].

The actual buildings belonging to AFIT are located at Wright-Patterson Air Force Base, Ohio. AFIT is divided into three schools: The School of Systems and Logistics, the School of Civil Engineering, and the Engineering School. The School of Systems and Logistics will be of primary concern for this report and the PCE Program in particular.

The PCE Program involves over sixty courses that vary anywhere from two days to six weeks in duration. These courses are generally offered several times a year. Many of these courses satisfy requirements for upgrades from one Air Force Specialty Code to another or for corresponding upgrades for DOD civilians. The purpose of PCE, as stated by the AFIT catalog, is to ". . . help people avoid professional obsolescence, to help people move into new jobs, and to assist in the transfer of new knowledge [12:182]." The courses cover a wide range of management areas such as acquisition management, logistics management, and others. According to DOD 5010.16-C, the PCE Program has integrating and coordinating courses to broaden the scope and depth of the system manager's knowledge in the total spectrum of systems management as opposed to the more narrow functional specialist concept. The objective result is a more knowledgeable group of systems and logistics

managers capable of employing modern concepts and techniques in their respective professional or specialized areas (12:II-A-1). Classes are improved at AFIT by

1. Limiting the number of students per class in order to maintain a seminar atmosphere.

2. Integration of management principles into real-world problems.

3. Use of exercises and case studies.

4. The use of the latest in teaching methods and teaching aids.

5. Hiring instructors who are highly qualified educationally as well as having experience in the field (12:182).

After the Defense Systems Management School (DSMS) opened in 1971 at Ft Belvoir, Virginia, the AFIT School of Systems and Logistics continued to teach System Program Management (SYS 223). SYS 223 was designed to provide a ". . . comprehensive overview of the management process by which USAF systems are acquired and the relationship of this process to the Program Office [14:II-A-44]." The course reviewed DOD and AFSC policies and organizational elements in the SPO concerned with implementing them. It covered the stages of the acquisition cycle including conceptual, validation, full scale development, production and deployment. It also discussed the areas and functions of a SPO such as system engineering, contracting/manufacturing, configuration

management, systems test and evaluation, program control, integrated logistics support, etc. Current problems evident in the acquisition process were explored during the course by use of lecture and student discussion. The classes used simulation exercises where students were presented with real world problems. As a team member, each had to manage a program from its early conceptual phase to production considering various tradeoffs between cost, performance, and schedule in order to achieve desired program objectives. Attendees at the course had to be Air Force officers in grades O-2 through O-5, and civilians GS-12 and above. All were required to have SPO experience and be currently involved in systems acquisition management. The course lasted five weeks.

In FY 80, AFIT began to teach a course called Fundamentals of Acquisition Management (SYS 123). This course was presented for people with less than six months in the SPO. It duplicated the first sixty hours of SYS 223, but was geared toward the beginner in the acquisition business. According to Major Withee, instructor at AFIT, SYS 123 was a basic introduction into the vocabulary and various players in the acquisition process. The purpose was to introduce some terms and get the "new people" started. They were then sent back to the SPO to get some OJT by their supervisors. Later they would return to AFIT for SYS 223 and other advanced courses. However, students were not allowed to take SYS 123

if they had already taken SYS 223, nor to take the first sixty hours of SYS 223 if they had already had SYS 123.

Several problems came to the attention of instructors at AFIT concerning SYS 223 that made them seriously consider restructuring the Program Management courses. During the time period 1976 to 1977, AFIT became increasingly aware of a need for change. Many new people were coming into the systems acquisition business. Instead of having a lot of senior captains, majors, and lieutenant colonels attending the courses, more and more first and second lieutenants were populating the classes (18). The background and experience of the students were rapidly changing. Managers were reluctant to come to AFIT to take SYS 223, claiming among other things that the office just simply could not spare them for that long. Of course, that was the fallacy in their thinking. The office certainly could spare their manager for a time if he would come back to them with increased knowledge and ability to handle problems in the SPO. As a result, class size was increased to accommodate the greater influx of junior ranking officers, and the courses were shortened so not to keep people out of the office as long (18).

An answer to the problem was found in the concept of Phase I, Phase II, and Phase III. On August 6, 1981, Colonel Ralph Chason, Director, Educational Plans and Operations, forwarded two draft Air Force Forms 19, Request to

Establish a New Professional Continuing Education Short Course, to HQ AFSC. Air Force Forms 19 are the paperwork that AFSC uses to tell HQ USAF that they have a training requirement. AFIT had done some preliminary staff work for HQ AFSC on the problem of educational offerings for program management and had come up with some suggestions for changes in course offerings. The draft Air Force Forms 19 described two new courses proposed by AFIT as part of the ". . . new integrated systems acquisition management education program [2:1]." Major General Sherman, AFIT Commandant, had already briefed the proposed changes at the AFSC Commanders' Conference, Horizon West, in May 1981; so the stage was set to introduce the new courses. The first draft Air Force Form 19 described SYS 200, Acquisition Planning and Analysis. The course length would be three weeks offering eight classes per year. Attendees should be in grades second lieutenant to major, technical sergeant through chief master sergeant, and GS-9 through GS-12. In order to understand the proposal better, a copy of the justification from the draft Air Force Form 19 is included:

> Currently, there is no integrated system management education program. The primary course for program managers (SYS 223) was designed for people with at least 18 months in the AF and at least six months in a Program Office. There has been a great influx of newcomers to acquisition management from 2Lt to Lt Col with one month to over 24 months SPO experience. The single course (SYS 223) cannot and does not meet the needs of such a wide range of student backgrounds. In

> addition, the responsibilities and tasks performed by the working level and first-line supervisors are significantly different than the second- or third-level supervisors/middle managers. Therefore, a new systems acquisition management education program is required to replace the current SYS 223. The proposed program would have three phases. Phase I, for new entrants into acquisition management would include a slightly revised SYS 123 course, "Introduction to Acquisition Management," plus a specialty course suitable for the student's job. The course requested by this AF Form 19 would be the specialty course for program/project managers and upgrade education requirement for all other AFSCs. Phase II is the AF Intermediate Program Management Course (requested by a separate AF Form 19). This course would emphasize management of less-than-major AF programs/projects. Persons needing education relating to tri-service or DOD major programs would attend either the Program Management or the Program Management for Functional Managers Course at DSMC. Phase III would include DSMC's Executive Refresher and System Acquisition Management for General/Flag Officers Course. Without the proposed courses and a revised integrated systems acquisition management education program, our program/project managers and their functional support personnel will not be as efficient and effective as necessary to acquire today's and tomorrow's systems and items of equipment [2:pp.2-3].

The second draft Air Force Form 19 set the stage for the present Intermediate Program Management Course (SYS 400). The class lasts fifteen days and its attendees must be in the ranks of major through colonel or Air Force civilian GM-13 through GM-15. Completion of SYS 123, SYS 223, or SYS 100 is a prerequisite for attendance. The course specifically prepares people for the role of middle manager in program office management.

Defense Systems Management College (DSMC)

Another important training facility for program management is the DSMC. The goal of the DSMC, according to former Deputy Secretary of Defense David Packard, is to be ". . . the Academy of Management for the (Defense) Department and for all four (military) services. . . [15:5]." The DSMC is a chartered joint military service/Office of the Secretary of Defense institution. It operates under the direction of a Policy Guidance Council chaired by the Under Secretary of Defense for Research and Engineering, who is also the DOD acquisition executive. The college's Program Management Course serves as the capstone for the professional education of DOD component personnel who will be involved in program management. A Board of Visitors advises the Commandant and the Policy Guidance Council on the operation of the college.

The establishment of the DSMC was brought on by programs with huge cost overruns and technical foul-ups such as the C-5A transport. Problems such as this angered Congress and made the DOD realize that something had to be done to improve management government programs. Then Deputy Secretary of Defense David Packard believed the key was in training program management personnel and de-emphasizing procedures. He wanted to improve defense systems management by establishing an institution where those with proven talent could be prepared for careers in management (6:5).

The events which lead up to the establishment of the DSMC are highlighted below. A conference held by the DOD in April 1963 focused on the subject of Program Management and the need to educate acquisition managers and specialists in all phases of the life-cycle management of a system because so few personnel were trained in program management. The major findings of this conference were:

1. Major defense systems should be developed and acquired under centralized management by organizations set up specifically for the purpose.

2. The essential problems and skills of program management were common to all services.

3. A need exists for specialized training at a central school (16:6).

As a result, later that same year, the DOD directed that a system/project training facility be established. The Defense Weapon Systems Management Center (DWSMC) was established in March 1964 at Wright-Patterson Air Force Base, Ohio. The Department of the Air Force acted as executive agent (16:6).

In 1969, Deputy Secretary Packard established a Review Group to study again the problem of program management education. The Review Group focused on the DWSMC at Wright-Patterson Air Force Base. The DWSMC, since its creation in 1964, was the only DOD-educational facility devoted to training managers in the defense acquisition business. Not only because the DWSMC was controlled at the departmental

level (Department of the Air Force), but because it was in Ohio, the Review Group suggested some changes. Some of the recommendations were:

1. Lengthen the school's 2½ month course to five months.

2. Orient the course towards intermediate-level managers rather than senior-level managers.

3. Establish a short refresher course for senior-level managers.

4. Place the jurisdiction of the school at the level of the Office of the Secretary of Defense instead of the departmental level.

5. Establish a Policy Guidance Council and a Board of Visitors to oversee school operations.

6. Fill the position of Commandant with the general/flag officer level and rotate it among the Army, Air Force, and Navy.

7. Relocate the school in the Washington, D.C. area (16:6).

The idea behind locating the school in the Washington, D.C. area is that it would be in close proximity to the Pentagon. By locating there, decision and policy makers could have easy access to the school to participate and enhance the educational program. Deputy Secretary Packard approved the recommendations of the Review Group in September 1970. A Policy Guidance Council was established and, in January 1971,

he issued a memo directing the DWSMC to move to Ft Belvoir, Virginia. The Army was designed as the support group with Army Brigadier General Winfield S. Scott assigned as the first Commandant. On March 18, 1971, the Deputy Secretary approved a plan submitted by the Policy Guidance Council and General Scott for implementing the Review Group report, which included naming the new institution the Defense Systems Management School (DSMS) (16:5). The council wanted to implement a new approach characterized by intensive participative activity, computer-assisted exercises, and case studies to be used in the training of PMs (6:6).

For the next six months, General Scott and his small staff spent their time in some temporary office space in the Pentagon working with members of the Director of Defense Research and Engineering staff. They planned for the school's opening, selected the administrative staff, and established an initial curriculum. Opening ceremonies for the DSMS were conducted on August 1, 1971, even though the official opening date was July 1, 1971. At the dedication ceremonies, Secretary Packard said,

> We want this school to become an academy of management and an institution of high distinction where the best of modern management practices are taught. We want it to become a center of research for the improvement of managerial practices [16:6].

Brigadier General Winfield Scott, first Commandant of the DSMS, wrote in the first issue of the DSMS quarterly newsletter,

"We will strive to initiate a continuing line of communication to the program/project management public. First, I would like to remind you of the mission of DSMS as presented in its three dimensions in DOD Directive 5160.55:

"(1) Provide an educational program in effective program/project management for selected military and civilian persons, the primary role of the school;

"(2) Conduct research in defense program/project management concepts and methods as required to support the school in fulfillment of its primary mission; and

"(3) Assemble and disseminate information concerning new methods and practices in program/project management [7:1]."

Defense Secretary Melvin R. Laird appeared before the Senate Armed Services on February 17, 1972 and said:

> I believe that we have made significant improvements in Department of Defense management and in our weapons system acquisition policies . . . . We have made a real improvement in the procedure for selecting and training our project managers. The Defense Systems Management School is established and has graduated its first class. The project managers now have increasing responsibility and authority, a more streamlined line of command within their military departments to decision-makers, longer tour lengths which are tied to major program milestones, and in a career that is appropriately recognized and rewarded [7:1].

Originally chartered to only present two classes, the Program Management Course (PMC) and a three-week Executive Refresher Course, DSMC has expanded their curriculum. The first PMC had sixty students and began on August 2, 1971. This class was taught mostly by contractors because a permanent faculty had not yet been hired. The first Executive Refresher Course began on February 28, 1972. During 1972-1973,

the Contractor Performance Measurement Course (CPMC) and the Systems Acquisition Management (SAMC) for general/flag officers were added. Since that time, the following courses have been added to the curriculum:

- Business Managers Advanced Workshop
- Contract Finance for Program Managers Course
- Defense Manufacturing Management Course
- Management of Life-Cycle Costs Course
- Management of Software Acquisition Course
- Manpower Systems Management Course and Executive Symposium
- Multinational Program Management Course
- Program Management for Functional Managers Course
- Test and Evaluation Management Course

The DSMC has gained a very high reputation as a center for education of PMs. When Secretary Clements issued DOD Directive 5000.23 in 1974, DSMC received even more recognition. It recommended that all perspective PMs attend the school either shortly before or right after being assigned to a major program office. This also led to the establishment of the Army Program Management career field and the Navy Weapons Systems Acquisition Management career program (6:11). On July 22, 1976 Secretary Clements suggested that the Defense Systems Management School (DSMS) change its name to the Defense Systems Management College (DSMC) ". . . to better

recognize the true scope and sophistication of the curriculum and reflect the level of professional education offered [7:11]."

The nucleus of the academic program at DSMC is the PMC, so it is important to understand what that course entails. Designed for middle-level managers, the course emphasizes the DOD PM's point of view. The fundamentals of acquisition management are taught, along with stressing the qualities of judgment, initiative, and common sense. The DSMC 1983 catalog says that,

> . . . in addition to building student skill and confidence through the handling of individual and team challenges, the curriculum provides the student with the broad knowledge and understanding necessary for the effective operation of program management teams [15:29].

Because of the varied backgrounds of the attendees, the course emphasizes functional knowledge, case studies, lessons learned, and a lot of interaction between students. Two field trips are conducted. One is to Capitol Hill to visit certain Congressmen directly involved in national defense legislation. The second trip is to a defense contractor's plant (6:16).

The following subjects are taught in the course:

- Defense Acquisition Policy and Management
- Fundamentals of Program Management
- Human Resource Management
- Effective Communication

- Systems Engineering Management
- Integrated Logistics Support Management
- Test and Evaluation Management
- Manufacturing Management
- Contract Management
- Program Funds Management
- Program Cost Management
- Contractor Financial Management
- System X
- Acquisition Management Simulation
- Program Management Decision Briefing
- Programs with Industry/Congress

The course is restricted to military officers in grades O-3 through O-5 and civil service grades GS-11 through GS-14. Civilians whose companies have slated them for upper-management positions may also attend the course.

DSMC's fifth Commandant, Lieutenant General Thurman, said, ". . . there is as great a need for the College as at any time in its history [6:3]." The college is well prepared for its role in the 80s. The college itself has expanded to six buildings. Along with its primary role of teaching PMs, it is expanding its research role. Frequent internal reviews provide a systematic, logical basis for structuring and modifying the curriculum to meet the changes in the defense acquisition management environment of the present and the future.

Defense Resources Management Education Center

DSMC and AFIT are not the only sources of training for PMs. Other schools, such as the Naval Post-graduate School in Monterey, California do offer some courses dealing with program management. The Naval Post-graduate School offers two short courses that might be helpful in a PM's development. The first course is entitled Senior Defense Resources Management Education and it is two weeks in duration. This course is designed for flag/general officers and civilians GS-16 and above (14:IV-A-3). The purpose of the course is to provide senior military and civilian executives an appreciation of the concepts, principles, and methods of defense management as they concern resource management systems and related activities. The course attempts to develop an understanding of the concepts, principles, processes, applications, and techniques of Defense Management Systems; however, it does not try to develop the technical skills used in the planning, programming, and budgeting activities. The course is a general overview that gives a broad understanding of problem-solving and decision-making in DOD (14:IV-A-3).

The second short course offered at the Naval Post-graduate School is entitled Defense Resources Management. This course lasts four weeks and is open to military O-4 and above and civilians GS-11 and higher. Its purpose is also to develop knowledge and understanding of the concepts, principles, processes, applications, and techniques of Defense

Management Systems. The emphasis is on the analytical aspects of resources management including needs, objectives, alternatives, analytical models, effectiveness, cost, and criteria analysis. Again, no attempt is made to develop technical skills required in planning, programming, and budgeting activities (14:IV-A-4).

U.S. Army Management Engineering Training Activity (AMETA)

The courses at AMETA in Rock Island, Illinois are mostly technical in nature, such as courses on Pascal, Cobol, and Operations Research. They also present some courses for managers such as: Management Analysis Workshop, Management Development Seminar, Management of Managers Course, etc.,; however, no course is specifically designed for PMs or program management personnel (14:III-B-2).

U.S. Army Logistics Management Center (ALMC)

ALMC at Ft Lee, Virginia is another source of training; however, it does not offer many courses geared toward the PM. One course they do offer is entitled Program Manager Development and it is six weeks in duration (14:III-A-42). The purpose as stated in DOD 5010.16-C is to provide the opportunity to acquire familiarization in the principal functions associated with program management so that attendees will be able to function in project management assignments

following course completion. No further explanation is given of the course in DOD Directive 5010.16-C.

Extension Course Institute (ECI)

Through self-study courses offered by the ECI, Air Force personnel can take advantage of many educational opportunities. The ECI is part of the Air University and its headquarters is at Gunter Air Force Station, Alabama. If a large number of students in the same location are taking a course, then they may organize themselves into a class study group using the ECI course text. Many of the ECI courses are required for upgrade training. Both mandatory and voluntary enrollments are made through the Base Education Office. The Education and Training Officer handbook says,

> . . . those who have the initiative and desire to progress educationally should be encouraged and given time off from duty to come to the education office to enroll in a voluntary CDC or to participate in other training that will aid them in their progression, either technically or academically [3:1].

Some courses offered by ECI in the systems acquisition area include:

Introduction to the Quality Function

Contract Administration

Government Contract Law

Principles of Contract Pricing (3:1)

Education With Industry (EWI)

EWI is another source of training that has its roots in 1947 when the Air Force became . . .

> . . . aware that weapons systems would no longer be procured in the old way; and that the complexities and costs of new systems development, acquisition and operation could only be on an upward spiral. The Air Force needed officers who could interpret these events and make better decisions in the fast-paced technological-management environment. There was a real need for the government and industry to work harmoniously together with mutual understanding of techniques and problems [9:10].

So, EWI was created and designed to give selected Air Force officers and civilians an in-depth understanding of the organization, management, and operation of the industry or governmental agency to which they are assigned. It is a ten-month, nondegree internship program sponsored jointly by AFIT and leading industries and government agencies throughout the country. This program gives the Air Force officer the opportunity to understand industry's approach to management of research, development, contracting, and manufacturing. Currently, there are over thirty-five different education programs involved. The following pertains to program management:

Aircraft Maintenance Management

Communications Management

Computer Performance Measurement

Contracting and Manufacturing

Cost Analysis

Financial Management

Systems Acquisition Management

Each student is usually responsible to a coordinator within the company who provides AFIT with a file copy of the current company program. The officers generally rotate through various departments and/or laboratories that provide education and experience in

1. Company organization, functions, and policies
2. Management philosophies and procedures
3. State-of-the-art and advanced technology (9:11)

Lieutenant Commander John Seymour, in his paper for the DSMS, says that training with industry should become a

> . . . key ingredient which must be included in the training diet of our future program managers. For without this key ingredient, the program manager of tomorrow will not achieve the balanced perspectives which are becoming increasingly important in the program management world of today [9:28].

He recommends that EWI followed by training at DSMC be a part of every program management career plan. The training should be in supply management, procurement management, logistics plans and programs, production scheduling, program control, cost analysis and estimating, pricing, proposal preparation, program financial management, and quality assurance (9:29).

Civilian Sources of Systems Acquisition Training

Another source of training for PMs that should be considered are short courses offered by civilian organizations. One such organization is the American Management Association (AMA). This organization holds several conferences a year in areas of systems acquisition and program management. These courses are open to government and civilian personnel interested in the particular subject being taught. These conferences are usually held in very attractive areas such as San Francisco, Dallas, or Miami. The classes are generally two to three days in duration and are taught by a university professor who is hired by the AMA. A military member is often sponsored by his organization to attend the conference when that particular facet of training can be found no where else. The attendance fees can range from $400.00 to $900.00. As an example, another management group is Humphreys and Associates. They are a management consultant firm located in Los Angeles, California that hires out their services to military groups wanting specialized training in particular areas. They are located near Space Division, Los Angeles Air Force Station and, as a result, often offer instruction to people at Space Division. It is important that the reader realize that these civilian groups do exist as a source of possible training for systems acquisition; however, realize

that the Air Force discourages using outside organizations when the equivalent training can be obtained through the DOD.

The above discussion treated the various sources of training available to program management including: AFIT, DSMC, the Naval Post-graduate School, AMETA, ALMC, ECI, EWI, and civilian organizations. The following chapters will assess the adequacy of this training as viewed by the system program directors.

CHAPTER III

INTERVIEW RESULTS

Three of the stated objectives of this study are: (1) given the training available in systems acquisition management, what training is really being utilized to prepare Air Force members to manage major acquisitions; (2) is this training adequate; and (3) what improvements, if any, should be made to this training? The writer believed that the best source of this type of information was the key people who are currently in charge of a major weapons system acquisition, the system program directors (SPDs). It was decided that the most effective way to obtain the information from these people would be through face-to-face interviews.

Structuring the Interview Format

The next task was to limit the scope of the investigation to manageable proportions and to design an interview format or discussion guide. This guide was used to provoke responses which could be systematically correlated and analyzed to assure comparable coverage from each source. The writer spent several weeks writing rough drafts of the interview format. Guidance was provided by the Department of Organizational Sciences at AFIT. The author conducted

several "practice" interviews with various versions of the interview format. After each practice interview with instructors at AFIT who were knowledgeable in systems acquisition, the format was revised. These preliminary interviews eventually verified the propriety of the questions forming the interview guide as used and presented as Appendix A.

The interview format was designed to provide data reflecting both the professional management views of the SPD and his personal views and insights concerning the training available for weapons system acquisition personnel. This information gave an indication of the manner in which the SPD views the training available in the systems acquisition area.

The first series of questions focused mainly on what courses and from what sources the SPD had received his education in program management. The SPDs were asked whether they had attended certain AFIT courses dealing with program management and if they had attended any DSMC courses. They were then asked if they recommended and actually sent their people to these courses at AFIT and DSMC and if they had any trouble getting quotas to these schools. The SPD was asked to rate the courses at AFIT and DSMC either Excellent, Good, Fair, or Poor.

Next, the SPD was asked if he ever resisted sending his people to school. Then, the questions asked whether the SPD had attended the Naval Post-graduate School, AMETA, or

ALMC. He was asked if he had taken any correspondence courses through ECI or been assigned to EWI, and if he encouraged his people to apply for these forms of training. Also, the SPD was asked if he thought the training offered by civilian institutions such as the AIAA or AMA are helpful to program management personnel.

The last series of questions dealt with the possible need for improvement in the various forms of training. The SPD was asked if he had any suggestions for improvement in the training available at AFIT, DSMC, AMETA, ALMC, and the Naval Post-graduate School. The second to last question asked the SPD to describe the "ideal" training program. The final question asked the SPD if he attended a Program Management course right before or right after he was assigned as a SPD.

Personal Resumes

Personal history resumes were obtained for all of the interviewees. Table I shows a brief summary of that information with respect to rank, current position, experience (last ten years), and formal education.

Interview Arrangements

Initial planning and scheduling of this research effort established an interview framework covering four weeks. The author initially limited her interviews to Aeronautical

TABLE 1

SUMMARY OF RESPONDENT PERSONAL DATA

Number	Rank
1	Major General
1	Brigadier General
7	Colonel
3	Lieutenant Colonel
2	GM-14
	Current Position
8	System Program Director
5	Deputy System Program Director
1	Program Division Chief
	Experience (Last Ten Years)
9	Systems Acquisition/Engineering
2	R&D Staff or Air Staff
3	Operations
	Highest Formal Education
1	B.S.
9	M.S.
4	M.B.A.

Systems Division (ASD) SPD at Wright-Patterson AFB. The reason being the accessibility of SPDs at ASD. The fact that ASD has several large aircraft programs such as the B-1, the F-16, and the KC-135 also meant that it was a fruitful source of information for this thesis effort. After conducting nine interviews at ASD, the author found it necessary to expand her audience to another product division. The author conducted five more interviews at Armament Division (AD) at Eglin AFB, Florida. Not only did this provide more interviews, but it also provided a little different outlook on training at a product division that is geographically removed from any training centers.

In order to set up the interviews, contact was made directly with SPDs' secretaries over the telephone. A thorough explanation of the nature and objectives of this study were given over the telephone to set the stage for the interview. The author followed up each telephone appointment with a copy of a letter from Dr. Louis W. Smith, Director of Education and Training at Headquarters AFSC, soliciting support for her thesis effort. Along with this, the author enclosed a letter from herself describing her thesis and a copy of the Interview Format. A copy of these two letters are included in Appendix B.

Understandably, in several instances, a SPD found it necessary to cancel an appointment on rather short notice.

However, in all cases, it was possible to reschedule the interview. In five cases, the author was rescheduled to interview the Deputy SPD due to a last minute meeting or temporary duty (TDY). One of the original goals of the interview effort was to collect information exclusively from SPDs. However, due to TDY and other commitments of the SPDs, this proved to be a bit optimistic. In eight out of the fourteen interviews conducted, the author spoke directly to the SPD. Five interviews were conducted with Deputy SPDs, while one was conducted with a Program Division Chief.

Conduct of the Interview

The interview was designed to require approximately twenty-five to thirty minutes for completion. Actually, the interviews ranged anywhere from twenty-five minutes to ninety minutes. In every case, the first five or so minutes were used to re-explain the nature and purpose of the study. The remainder of the time was used for answering the questions outlined in the discussion guide. The SPD had a copy of the discussion guide to aid him in following the interview and structuring his answers. The author used a dictaphone during each interview and took notes to supplement the tape recorder. Immediately following the interview, the notes and tapes were compared and transcribed to form an aggregate report for that interview.

Analysis and Discussion of Interview Questions

This section is an analysis and discussion of the answers to each question in the interview format.

AFIT

1. Of the following AFIT courses, which have you actually attended?

2	a.	Fundamentals of Acquisition Management (SYS 123)
5	b.	System Program Management (SYS 223)
0	c.	Introduction to Acquisition Management (SYS 100)
1	d.	Acquisition Planning and Analysis (SYS 200)
0	e.	Contracting and Acquisition Management (CM 5.23)
0	f.	Seminar in Acquisition Management (CM 5.45)
0	g.	Life Cycle Cost and Reliability (AM 5.59)
1	h.	Financial Management in Weapon System Acquisition (SYS 227)
0	i.	Applied Configuration Management (SYS 228)
1	j.	Test and Evaluation Management (SYS 229)
0	k.	Cost/Schedule Control Systems Criteria (SYS 362)
0	l.	Analysis of Performance Measurement Data (SYS 363)
0	m.	Intermediate Program Management (SYS 400)

Of the thirteen listed courses at AFIT dealing with program management, only six courses were named. Two interviewees had attended SYS 123. Five had attended SYS 223. One SPD had attended SYS 200. (Note, the author included SYS 123 and 223 in her list of AFIT courses even though they have now been replaced by the series SYS 100, 200, and 400 to include any SPD who may have taken those in the past.) One had attended SYS 227 and one had attended SYS 229.

2. Of the following AFIT courses, which do you recommend and actually send your program management people to? (Note, the same list was used as the previous question.)

1	a.	Fundamentals of Acquisition Management (SYS 123)
4	b.	System Program Management (SYS 223)
10	c.	Introduction to Acquisition Management (SYS 100)
10	d.	Acquisition Planning and Analysis (SYS 200)
1	e.	Contracting and Acquisition Management (CM 5.23)
1	f.	Seminar in Acquisition Management (CM 5.45)
2	g.	Life Cycle Cost and Reliability (AM 5.59)
6	h.	Financial Management in Weapon System Acquisition (SYS 227)
1	i.	Applied Configuration Management (SYS 228)
6	j.	Test and Evaluation Management (SYS 229)

___3___ k. Cost/Schedule Control Systems Criteria (SYS 362)

___2___ l. Analysis of Performance Measurement Data (SYS 363)

___5___ m. Intermediate Program Management (SYS 400)

One SPD recommends every course to his people and adds several more that he sends his program management people to. The courses he added were Air Force Technical Order Acquisition and Management Course (SYS 010), Introduction to Configuration Management (SYS 028), Advanced Configuration Management (SYS 128), Introduction to Life Cycle Costing (QMT 353), and ASD Systems Acquisition Orientation Course.

3. By sending your people to these courses at AFIT, are you seeing an improvement in their performance on the job?

___13___ Yes ___1___ No

Thirteen SPDs answered Yes, that by sending their people to the courses at AFIT they are seeing an improvement in their performance on the job. Only one SPD said No, that he did not see an improvement in their performance on the job.

Most of the SPDs who answered affirmatively said that the in-depth knowledge acquired in the courses brings together the OJT and work requirements.

One SPD who thought that the AFIT courses were definitely useful said that he cannot get people into AFIT

early enough. He wanted to send people to SYS 100 the day they come on base. A new second lieutenant takes time before he or she is productive because they do not have the background they need. Given the chance, he would send his new people right away to SYS 100 to give them the tools and introduce them to the acquisition cycle. The person would then come back to the program office for six months or a year before he sends them to SYS 200 to get them fully qualified and up to speed. Later, he would send them to SYS 400.

Several SPDs questioned whether there was any real noticeable improvement right away. However, they felt much more confident assigning these people duties and sending them out to the contractors' plants knowing that they had had some training at AFIT.

One SPD answered affirmatively, but with reservations. He thought the whole educational process should be changed. He said the instructors at these various schools are traditionalists and teaching the traditional methods of F. W. Taylor. With the complex systems being acquired, the Air Force is falling quickly behind in management and is not stepping up to teach it. They should be teaching how to manage in a productive way at AFIT and then he would see more of an improvement in his people. For instance, they should

throw away all of the "canned" lectures that they have used for years and teach people how things are and will be in the 80s and 90s.

One SPD said because the courses are geared to the Air Force at AFIT, he sees a real technical improvement. Also, a lot of the "education" they get out of the courses are the contacts they make with their classmates from various bases. He also sees an improvement in morale from attending courses at AFIT.

The one SPD that answered No said that he did not think the improvement in performance was directly relatable to someone's attendance at AFIT. Rather, it is a growing process. They are learning by doing and AFIT is just one aspect of the whole development process.

4. Do you believe the system for allocating quotas at AFIT allows you to train your people adequately?

8 Yes 6 No

Of the eight SPDs who said Yes, most agreed that the log-jam at AFIT was cleared up by making SYS 100 available in tele-teach form. One SPD commented that the manning has been down to the point in his SPO that he felt guilty taking someone out and sending them to school when a quota came up. Most thought that more quotas were available in the last three or four years and that AFIT was working very hard to get people slots.

The six SPDs that responded negatively thought the problem was in timing and getting the quotas when they needed them. With the advent of many courses being mandatory for upgrade, the quotas are getting tougher to get. One SPD said that he just simply will not send a person to an AFIT course until they have been in the office at least six months, quota or no quota. Another SPD commented that in most courses they get adequate quotas, but the timing of announcements is often erratic. This makes planning difficult at times since notification is often late. He added that no one really understands how the system works, that the SPOs will go on for awhile not getting anyone into the AFIT courses and all of a sudden a whole lot of quotas arrive.

One SPD at Eglin AFB said that Eglin has a harder time getting quotas than other product divisions. He thought it was because Eglin is a new product division and they do not get an equal share of spaces based on the population at Eglin AFB.

5. Of the Program Management courses you are familiar with at AFIT, rate each either Excellent, Good, Fair, or Poor.

	Excellent	Good	Fair	Poor
a.		3		
b.		3		
c.		5	4	
d.		4	3	
e.		3		
f.		3		
g.		3		
h.	1	4		
i.		3		
j.		6		
k.		3		
l.		3		
m.		3		

Several SPDs were reluctant to rate the courses at AFIT. They did not think that they knew enough about them to put a rating on them.

All the courses were rated as good except SYS 100 which received 4 Fair ratings and SYS 200 which received 3 Fair ratings.

One SPD said he gets negative feedback from his people who have taken courses at AFIT on tele-teach. He understands the reason behind tele-teach, which is to get as many people trained as possible, but he thinks it becomes merely a square filling exercise instead of a learning

experience. He added that tele-teach in the form of SYS 100 is frustrating because it is boring. He would prefer a traditional classroom situation to learn the weapons acquisition business.

DSMC

6. Of the following DSMC courses, which have you actually attended?

1	a.	Program Management Course (20-week course)
4	b.	Executive Refresher Course in Acquisition Management
0	c.	Systems Acquisition Management for General/Flag Officers
0	d.	Business Managers Advanced Workshop
1	e.	Contract Finance for Program Managers Course
0	f.	Contractor Performance Measurement Course
0	g.	Defense Manufacturing Management Course
0	h.	Management of Life-Cycle Costs Course
0	i.	Management of Software Acquisition Course
0	j.	Manpower Systems Management Course and Executive Symposium
1	k.	Multinational Program Management Course
0	l.	Program Management for Functional Managers Course
0	m.	Systems Acquisition Funds Management Course
0	n.	Test and Evaluation Management Course

Of the SPDs interviewed, only one had attended the 20-week course and four had attended the Executive Refresher Course in Acquisition Management. However, one of my interviewees, Major General Thurman, is a former Commandant of DSMC.

7. Of the following DSMC courses, which do you recommend and actually send your program management people to:

9	a.	Program Management Course (20-week course)
3	b.	Executive Refresher Course in Acquisition Management
0	c.	Systems Acquisition Management for General/Flag Officers
1	d.	Business Managers Advanced Workshop
3	e.	Contract Finance for Program Managers Course
2	f.	Contractor Performance Measurement Course
0	g.	Defense Manufacturing Management Course
1	h.	Management of Life-Cycle Costs Course
0	i.	Management of Software Acquisition Course
0	j.	Manpower Systems Management Course and Executive Symposium
2	k.	Multinational Program Management Course
1	l.	Program Management for Functional Managers Course
0	m.	Systems Acquisition Funds Management Course
1	n.	Test and Evaluation Management Course

Nine SPDs recommended the 20-week course. One SPD said that the 20-week course is "tops." Another SPD commented that all DSMC courses were to be recommended and that the location of DSMC is a bonus. For example, the Executive Refresher Course is addressed by many upper level DOD officials, the Air Staff, and Congressional staffers.

One SPD pointed out that he would rather recruit DSMC graduates than send his people to DSMC because he tended to lose people when he sent them there.

8. By sending your people to these courses at DSMC, are you seeing an improvement in their performance on the job?

__11__ Yes __1__ No __2__ Neither

Two SPDs do not send anyone to DSMC so they could not answer either way.

The one SPD who responded negatively did so because he said the people he sends to DSMC are good already and that is the reason he sends them. So, he does not see that much more improvement by sending them to DSMC.

9. Do you believe the system for allocating quotas at DSMC allows you to train your people adequately?

__6__ Yes __6__ No __2__ Neither

The same two SPDs, as in the previous question, could not respond because they do not send anyone to DSMC.

The SPDs who answered Yes, thought that DSMC was more selective, but the quota system satisfied their needs.

Of the six SPDs who said No, they agreed that slots are just too hard to get to DSMC. One SPD said specifically we could use more allocations in Test and Evaluation Management, Multinational Program Management, and Program Management for Functional Managers.

10. Of the Program Management courses you are familiar with at DSMC, rate either Excellent, Good, Fair, or Poor.

	Excellent	Good	Fair	Poor
a.	4	5		
b.	1	7		
c.	1	6		
d.	1	6		
e.	1	6		
f.	1	6		
g.	1	6		
h.	1	6		
i.	1	6		
j.	1	6		
k.	2	6		
l.	2	6		
m.	2	6		
n.	2	6		

Again, some of the SPDs were reluctant to rate the courses at DSMC that they were not familiar with. The majority of the responses said the courses were good with a few excellents interspersed. One SPD said that all DSMC courses are excellent and he had never received any negative feedback.

Other

11. Do you ever resist sending someone to school because it takes them away from the job too long?

6 Yes 8 No

Six SPDs responded Yes, that they did hesitate. One SPD said that it was primarily a problem with timing. He has a very small SPO and he cannot spare people as easily as larger program offices. Many times the quotas at AFIT do not fit his requirement at all. Four of the six SPDs who responded Yes were located at Eglin AFB. They cited the low manning at Eglin as the reason why they often resisted sending someone to school. One SPD said that he would only allow his people to spend up to 5 percent of their work time a year in training. He weighs the mission, leave, sickness, and TDY along with school. Training is an important consideration but only one of the important ones.

Most of the SPDs who responded with a No said that the timing is often wrong, but they will usually send the

person to school anyway. Sometimes they can send a substitute when one person is involved in a big project.

12. Have you attended any Program Management courses at the Naval Post-graduate School?

0 Yes 14 No

None of the SPDs interviewed had attended any courses at the Naval Post-graduate School.

13. Have you attended any Program Management-type courses at the Army Engineering Training Activity (AMETA)?

0 Yes 14 No

None of the SPDs interviewed had attended any courses at AMETA. The SPDs did not know much about the school and its offerings. One SPD said that he had never run into a requirement that could not be satisfied through AFIT or DSMC resources. He thought that at the senior level some of AMETA's courses may be okay, but young officers new in systems management would get more out of Air Force training. The new officers need more directed, technical training that is offered at AFIT.

14. Have you attended any Program Management-type courses at the Army Logistics Management Center (ALMC)?

0 Yes 14 No

None of the SPDs had attended any courses at ALMC. They said they never had a reason to because there were enough

courses at AFIT without going away to school. Some had never even heard of ALMC. They did not know enough about it to send their people, saying that there is quite a bit of difference between the Air Force and Army perspectives on project management.

One SPD said that he thought ALMC and AMETA were probably three-fourths civilian. He said that there was a real lack of knowledge about the course and course content. He suggested that someone who has had some experience with those courses should come in and brief the SPDs who could then consider steering some of their people into these courses.

15. Have you taken any correspondence courses through the Extension Course Institute (ECI) dealing with Program Management?

2 Yes 12 No

Of the twelve negative responses, most SPDs said that they did not have time to take correspondence courses.

16. Do you recommend that your program management personnel take ECI correspondence courses?

7 Yes 7 No

Seven SPDs encourage their people to take courses through ECI. One SPD says that he urges his people to take ECI courses when they cannot get the training elsewhere.

Because ECI is a do-it-yourself project, it does reflect their initiative. It gives the SPO people a chance to learn more about some technical areas on their own.

The seven SPDs who said No agreed that if their people need training they should be sent to a school. They felt that ECI was not that beneficial.

17. Have you been assigned to Education With Industry (EWI)?

___0___ Yes ___14___ No

None of the SPDs interviewed had been assigned to EWI.

18. Do you encourage your program management personnel to apply for EWI?

___11___ Yes ___3___ No

Of the eleven SPDs who encouraged their personnel to apply for EWI, they all agreed that it gives an added dimension to weapons acquisition. By understanding the contractor's side the individual can function better in the SPO. Their people in the SPOs who had attended EWI spoke very highly of it. The experience gained through the program is not available through either class attendance or OJT.

One SPD suggested that timing is the key to EWI. If the person goes too soon in their career, they will not get enough out of it; or if they do it too late, it will not help much. An individual should go to EWI when they are getting

ready to go into middle management. The participating company will give the person more responsible tasks. The person should be a senior captain.

Of the SPDs who responded negatively, they think that EWI takes the person out of the mainstream of the Air Force and is not good for their career. They also did not encourage their people to do EWI because they were afraid of losing them permanently.

19. Do you feel that the training offered by civilian institutions such as AIAA or the AMA are helpful to program management personnel?

___12___ Yes ___2___ No

Of the twelve SPDs who said Yes, they all thought that the training in Program Management offered by some of the civilian institutions was helpful; however, it was often rather expensive too. Several of the SPDs had attended these courses themselves and felt that they were quite good. Most SPDs are very selective in who will be sent to these courses because of the high fees and the fact that the SPO must generally pay the fees out of their own money. The management skills learned by attending these courses and the ability to use the correct techniques to approach problems makes the manager able to work more successfully with people and in a less stressful environment. These courses offer the chance to "rub elbows" with people out in industry.

The two SPDs who responded negatively thought these courses were a waste of time and money. One SPD said a lot of these civilian associations are "beltway bandits." They are only out to make a buck and do not teach anything that you cannot learn elsewhere.

20. What improvements, if any, do you think should be made to Program Management training at AFIT?

Several of the SPDs were not sure that AFIT could be changed tremendously. People should be programmed into the courses earlier. Quite a few of the SPO people have had to wait quite awhile before they get even the basic courses. At that point, taking the course becomes merely an exercise in square filling. By that time, they have already gotten most of their training the hard way. However, it is not a total waste of time because they may find out that they have been doing something wrong all along and can correct that. It is much more valuable to send them in the first six months instead of after they have been here two or three years.

One SPD agreed that he would like to see it easier to get quotas and be able to get people in to take courses when they need the training. He also thought AFIT should get rid of tele-teach. When classes are voluntary and people have more motivation, then tele-teach is probably okay, but for mandatory classes they act as a detriment to learning.

Another SPD said not to get rid of tele-teach because AFIT gets a lot of people trained with that method. The basic

objective is to get some initial training for SPO personnel and at least tele-teach offers that. One suggestion was that there should be two tracks of learning at AFIT. One track should be for brand new lieutenants. The other track should be for those officers who have been in the Air Force for some time but are new to weapons systems acquisition. The track for new lieutenants should start out much more basic and build a foundation. The older officers who are new to acquisition do not need such a basic introduction because they are at least oriented to the Air Force environment.

Several SPDs at Eglin said that AFIT was too parochial. They gear their courses too much to ASD without including enough for the other product divisions. They said that AFIT must realize that there are other product divisions with different missions and programs and AFIT should adjust the content of the courses accordingly.

One SPD said PMs should be entered into the education area on a programmed basis. If a method of tracking by computer could be arranged so that the class timing was responsive to fulfilling the needs of personnel in a timely manner, it would take the frustration out of scheduling for courses to meet the AFSC upgrade requirements.

One SPD said that the system at AFIT should not force people to "bootleg" it to get slots for classes, adding that AFIT makes it very hard to get courses and dwells too heavily

on large major SPOS leaving out the important aspects of smaller basket SPOs. Also, AFIT teaches the ideal as opposed to how it really is.

21. What improvements, if any, do you think should be made to Program Management training at DSMC?

One SPD said that by the time his people can get into DSMC they are already well educated in the skills that DSMC teaches. It might be better to send more captains to DSMC. Even though certainly a major who goes to DSMC will get a lot of benefit out of the course, it would be better to send someone who is four years junior in experience.

Another SPD commented that perhaps if some of the more desirable courses at DSMC could be brought to Wright-Patterson AFB, then we could fulfill requirements and needs more easily. Another SPD wanted to see more courses brought to Eglin AFB.

Several SPDs thought that DSMC needs no improving.

22. How do you think we should or could make better use of the other training centers such as AMETA, ALMC, and the Naval Post-graduate School?

Most SPDs said that the main problem was an ignorance of what was available at these other schools. Some thought that we should improve our own schools before we look at other systems. The other schools may not be structured to Air Force procurement.

Most SPDs agreed that the training offices in each SPO should become knowledgeable in the training offered at these places and let the SPO people know about them. Because in a SPO people are task-oriented; they really do not have time to dig out courses.

23. There are many ways to train Program Management personnel such as: self-study program, on-the-job-training, classroom instruction, correspondence courses, etc. Do you have any ideas for the "ideal" training program for the project manager?

One SPD said experience is the best component which includes OJT. A lot of work in his SPO is highly specialized and his people do not pick up certain unique things in school. School is helpful to get a broad overview and the initial training should be in the first six months.

One SPD said he would like to see schools teaching managers how to make decisions on systems of systems. The schools should be teaching people to be creative, innovative, and be risk takers. The instructors all use their "canned" lectures in the traditional method. The schools should be teaching managers how to use the three tools they have: (1) people, (2) organizational structure, and (3) technology.

Another SPD said that the new person should have at least a couple of days worth of orientation before they ever set foot in the office. They should learn what is Systems

Command, what is a SPO, and how they work. They should learn how SPOs deal with contractors. Next, there should be a phased-in overlap between the new person and the person he is replacing so that there can be some real OJT with someone who is at that level and has been doing that job. This should be followed up by reading and discussions in the SPO and a more formal OJT. The person should become familiar with all aspects of the SPO, not just the specific area he will be in. All the discussion areas in the training plan should definitely be covered.

One SPD made an analogy to getting in a swimming pool. Sometimes you stick your toe in to test the water and other times you just dive right in. It all depends on the person and the circumstances. Sometimes you have no choice but to dive right in, and in other cases, young lieutenants can take longer to train.

One SPD said the "ideal" training program would be different for every SPO. He thinks professional continuing education is very important because most of his people have had eighteen to twenty years of experience. He primarily wants to upgrade them and keep them in tune with the times.

Another SPD said the key has to be OJT with some sort of constructive training involved such as AFIT or DSMC. The best way to train a manager is to start him in the business and let him use his incentive and initiative. You can

then find out how aggressive he is and what he needs further training in. This is very good for a captain or major who has "walked" his way around the Air Force for a few years. However, this is tough to do with a new second lieutenant. They must have a bit of formal schooling. Junior officers need to be trained especially with DSMC courses. The senior captains and majors should learn the language and then be set loose to work in the SPO.

Another SPD thought the AFIT SYS 100, 200, and 400 series of Program Management courses is fairly well broken out. New people should go immediately to SYS 100 to get an initial exposure. A year later they should attend SYS 200 to solidify their learning. They should attend SYS 400 as they are going into middle management.

24. Were you sent to any Program Management courses right before or right after you were assigned as a Program Director?

___2___ Yes ___12___ No

Twelve SPDs did not attend any Program Management courses right before or right after they were assigned as a SPD. One SPD said that he did not need any training because he has been in the acquisition business for the last ten years. The two SPDs who did attend a course went to the DSMC Executive Refresher Course before becoming a SPD.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Having presented the results of the interviews, the writer then addressed the questions of:

1. Given the training available in systems acquisition management, what training is being utilized to prepare Air Force members to manage major acquisitions?

2. If this training adequate?

3. What improvements, if any, should be made to the current training?

What Training is Being Utilized?

AFIT

The SPDs themselves have not attended many courses at AFIT. Five of the fourteen interviewed had attended SYS 223. Two SPDs had attended SYS 123. One SPD had attended SYS 200. One attended SYS 227 and SYS 229. There are two general reasons for this lack of attendance on the part of SPDs.

1. Many of the SPDs came into program management from such diversified backgrounds as flying and communications. In those other fields they never had the reason or opportunity to take program management classes at AFIT.

2. Once involved in the SPO managing multi-million dollar projects, the SPD felt too busy to take the time out to attend classes at AFIT. They essentially "learned by doing" and built upon their years of experience in the Air Force.

When asked which of the AFIT courses they recommend and actually send their program management personnel, the SPDs responded more positively. Ten SPDs named SYS 100 and SYS 200; six named SYS 227 and SYS 229; and five named SYS 400.

DSMC

Again, as with AFIT, the SPDs themselves had not attended many courses at DSMC. Only one SPD had attended the 20-week course. Four SPDs had attended the Executive Refresher Course in Acquisition Management. One SPD had attended the Contract Finance for Program Managers Course and the Multinational Program Management Course. The same reasons why SPDs have not attended courses at AFIT also apply to DSMC with a few additional reasons:

1. Slots to DSMC are often hard to get, particularly to the 20-week course. DSMC has to satisfy the training requirements of all DOD not just the Air Force or Army or Navy. One deputy SPD said that his name had been submitted five years in a row and he had never been accepted to the 20-week course.

2. Several of the SPDs interviewed were reluctant to attend some of the courses at DSMC. Because DSMC presents the DOD perspective on systems acquisition, they believed that in terms of learning specifics about Air Force acquisitions, it would be more useful to attend AFIT.

When asked which DSMC courses they recommend and actually send their program management personnel to, the majority of SPDs said they would like to send their people to the 20-week course. Several of the other DSMC courses were also recommended by the SPDs.

Other

Without exception, none of the fourteen interviewees had attended any courses at the Naval Post-graduate School, AMETA, or ALMC. Only two interviewees had taken any correspondence courses through ECI dealing with program management. None of the SPDs interviewed had been assigned to EWI.

Is This Training Adequate and What Improvements Should be Made?

AFIT

The majority of the SPDs thought the training at AFIT was adequate to give their program management personnel a good technical background in acquisition. That does not mean that AFIT did not receive any negative comments. On the

contrary, almost every interviewee had some criticism for AFIT. Their intent was, however, to improve a program that was already good. Below is a summary of the improvements in AFIT programs suggested by the SPDs. These suggestions represent opinions that were expressed by at least half of the interviewees.

1. Specifically, address the tailored application of management practices for small (non-major) SPOs. The focus of AFIT courses should also deal with the unique needs of basket SPOs.

2. AFIT should keep in mind that ASD is not the only product division in AFSC. The other product divisions have different missions and programs that need to be addressed. AFIT should be careful not to be too parochial to ASD and Wright-Patterson AFB.

3. Two program management education tracks should be considered at AFIT. One track would be for newly commissioned officers who must start out with the absolute basics of acquisition. The second track would be for higher ranking officers who are new to the acquisition business but have been in the Air Force for a few years. They should start their training at a more advanced level.

4. Consider alternatives to tele-teach, especially in the basic courses such as SYS 100. In basic courses, the direct contact and interaction with an instructor is most

helpful. Perhaps more classroom space and instructors can be devoted to SYS 100.

DSMC

DSMC received high ratings from almost every interviewee. One SPD said DSMC is "tops" for program management education. A common comment from the SPDs was that, for their junior officers, DSMC may not be quite as helpful as the specific courses at AFIT. They said as soon as the officer gains experience and has taken some of the basic Air Force acquisition courses, then he would be ready to attend DSMC and learn the DOD perspective. The following is a summary of suggestions given by SPDs for improvement to DSMC programs.

1. More junior captains should be sent to the 20-week course instead of senior captains and majors. By the time a major goes to the course, he has learned much of its content through other courses and by experience. By sending a junior captain, he will have more time at the middle-management level to built on what he learns at DSMC.

2. DSMC should establish a video tape library of its courses. The contents of the library should be available to all DOD personnel. The library could be centrally located at DSMC and they could mail copies to various bases upon request. For instance, if a PM at Wright-Patterson AFB wanted to take a particular DSMC course, he would order the

video tape through the base training office. When he completed the course, he would return the tape to the training office who would send the tape back to DSMC. Also, DSMC should consider bringing some of its short courses to various bases and teaching them on-site. This would add the element of instructor-student interaction that video tapes do not have. Both suggestions, a video tape library and on-site instruction, give more program management personnel the opportunity to take DSMC courses.

Other

The SPDs did not express an opinion on the adequacy of training available at the Naval Post-graduate School, AMETA or ALMC because they were simply not familiar with the courses those institutions had to offer. Half of the SPDs interviewed did not think that the correspondence courses through the ECI were adequate. They would rather send their people to school when they need training. Although none of the interviewees had actually attended EWI, eleven of them encourage their personnel to apply for it. They agreed that the knowledge gained from actually working for and with a contractor is invaluable. Twelve SPDs thought that the training offered by civilian institutions such as the AMA were helpful to their program management personnel. The only drawback was the expense of the courses and the fact that the SPO must fund it out of their own money.

The suggestions for improvements in the Naval Postgraduate School, AMETA and ALMC focused on one area. SPDs and their people need more information on these schools. They really do not know if any of the courses would be beneficial or not. The training focal point in each SPO should become knowledgeable in the training offered at these places and let the SPO know about them. No suggestions for improvement were given for ECI, EWI, or the civilian associations such as AMA or AIAA.

Conclusions and Recommendations

It is time to look towards the future having completed a literature search of the training available to program management personnel, having conducted fourteen interviews with SPDs or their immediate subordinates, having summarized the results of the interviews, and having answered my research objectives. The final question to be addressed is, based upon my research, where should the Air Force go from here?

One of the biggest problems that exists is the lack of information to the SPOs. The SPO personnel and SPDs are not aware of the total spectrum of training available, how to get quotas for available courses, when to apply for them, and what the contents of the courses really are. Schools such as AFIT put out catalogs annually describing the courses and who is qualified for entry. However, these catalogs are

not generally available in AFSC "field offices." The SPDs, who are particularly concerned about the lack of information on the part of the SPO, should make a concentrated effort to ensure that the training focal point is aware of the training available and disseminates the information.

Several SPOs do have training plans established for their personnel. One SPO at ASD has a formal plan that establishes the training requirements for each person. After each segment of training is completed, the person's immediate supervisor initials his plan to signify completion of that requirement. However, this SPO is an exception; most SPDs interviewed did not have a generalized training plan for their SPO. Several SPDs suggested that the program management career field needs an organized, sequential development plan. They said that other careeer fields have them and perhaps the program management field should too.

One SPD suggested that a computerized tracking system could be developed so that program management personnel entered training on a systematic basis. Each new person entering the SPO would be integrated into the system. Also, AFIT and DSMC would enter their schedules, quotas, and course prerequisites into the system. The training focal point would access the system through a terminal located in each SPO. After the focal point gathered course requirements for the next fiscal year, he would enter these. A computer program

would then mesh the quotas of the schools against the requests of each SPO in order to allocate slots for the classes.

Many questions were brought up through this thesis effort which would be excellent topics for future research. The above project would be quite interesting to pursue. Several areas would have to be researched before a project of that magnitude could be initiated. Certainly, a cost/ benefit analysis and a feasibility study would have to be conducted. Other areas that would be productive for future research are listed below.

1. Research should be conducted to determine what type of training should be offered to program management personnel. Specifically, do they need to be trained in all the functional areas of a SPO or just the area they will be assigned to?

2. The qualifications required of a SPD need to be examined. Does he need an engineering background or is a management background sufficient?

3. A Systems Acquisition School designed for second lieutenants entering the program management career field was established at Brooks in Texas. A study should be done between the Systems Acquisition School at Brooks and SYS 100 taught at AFIT comparing the effectiveness of these two forms of training. Much overlap exists between the two courses. Is it necessary to have both of these sources of training?

4. Each command establishes their quotas for training courses differently. Should a uniform method be established?

APPENDICES

APPENDIX A

INTERVIEW FORMAT

Date_____

Division_____

SPO_____

SPD_____

Rank_____

Approximate Time in This Position_____

Past Experience_____

_____

Education_____

_____

If answered by other than SPD

Respondent_____

Position_____

AFIT

1. Of the following AFIT courses, which have you actually attended?

2. Of the following AFIT courses, which do you recommend and actually send your program management people to?

AFIT COURSES

_____a. Fundamentals of Acquisition Management (SYS 123)

_____b. System Program Management (SYS 223)

_____c. Introduction to Acquisition Management (SYS 100)

_____d. Acquisition Planning and Analysis (SYS 200)

_____e. Contracting and Acquisition Management (CM 5.23)

_____f. Seminar in Acquisition Management (CM 5.45)

_____g. Life Cycle Cost and Reliability (AM 5.59)

_____h. Financial Management in Weapon System Acquisition (SYS 227)

_____i. Applied Configuration Management (SYS 228)

_____j. Test and Evaluation Management (SYS 229)

_____k. Cost/Schedule Control Systems Criteria (SYS 362)

_____l. Analysis of Performance Measurement Data (SYS 363)

_____m. Intermediate Program Management (SYS 400)

3. By sending your people to these courses at AFIT, are you seeing an improvement in their performance on the job?

Yes/Why?

No/Why Not?

4. Do you believe the system for allocating quotas at AFIT allows you to train your people adequately?

Yes/Comment.

No/Comment.

5. Of the Program Management courses you are familiar with at AFIT, rate each either Excellent, Good, Fair, or Poor.

DSMC

6. Of the following DSMC courses, which have you actually attended?

7. Of the following DSMC courses, which do you recommend and actually send your program management people to?

8. By sending your people to these courses at DSMC, are you seeing an improvement in their performance on the job?

Yes/Why?

No/Why Not?

DSMC COURSES

_____a. Program Management Course (20-week course)

_____b. Executive Refresher Course in Acquisition Management

_____c. Systems Acquisition Management for General/Flag Officers

_____d. Business Managers Advanced Workshop

_____e. Contract Finance for Program Managers Course

_____f. Contractor Performance Measurement Course

_____g. Defense Manufacturing Management Course

_____h. Management of Life Cycle Costs Course

_____i. Management of Software Acquisition Course

_____j. Manpower Systems Management Course and Exeuctive Symposium

_____k. Multinational Program Management Course

_____l. Program Management for Functional Managers Course

_____m. Systems Acquisition Funds Management Course

_____n. Test and Evaluation Management Course

9. Do you believe the system for allocating quotas at DSMC allows you to train your people adequately?

Yes/Comment.

No/Comment.

10. Of the Program Management courses yo. are familiar with at DSMC, rate each either Excellent, Good, Fair, or Poor.

OTHER

11. Do you ever resist sending someone to school because it takes them away from their job for too long?

Yes/Comment.

No/Comment.

12. Have you attended any Program Management courses at the Naval Post-graduate School?

Yes/Which One(s)?

No.

13. Have you attended any Program Management-type courses at the Army Management Engineering Training Activity (AMETA)?

Yes/Which Ones?

No/Why Not?

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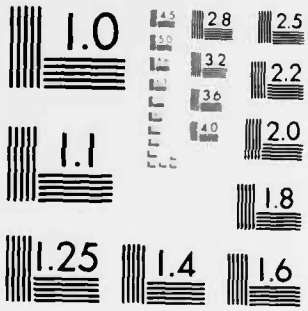

14. Have you attended any Program Management-type courses at the Army Logistics Management Center (ALMC)?

Yes/Which Ones?

No/Why Not?

15. Have you taken any correspondence courses through the Extension Course Institute (ECI) dealing with Program Management?

Yes/Which Ones?

No/Why Not?

16. Do you recommend that your program management personnel take ECI correspondence courses?

Yes/Why

No/Why Not?

17. Have you been assigned to Education With Industry?

Yes/Where?

No.

18. Do you encourage your program management personnel to apply for Education With Industry?

Yes/Why?

No/Why Not?

19. Do you feel that the training offered by civilian institutions such as the AIAA or the AMA are helpful to program management personnel?

Yes/Why?

No/Why Not?

20. What improvements, if any, do you think should be made to the Program Management training at AFIT?

21. What improvements, if any, do you think should be made to the Program Management training at DSMC?

22. How do you think we should or could make better use of some of the other training centers such as AMETA, ALMC, and the Naval Post-graduate School?

23. There are many ways of training program management personnel such as a self-study program, on-the-job training, classroom instruction, correspondence courses, etc. Do you have any ideas for the "ideal" training program for the project manager?

24. Were you sent to any Program Management courses right before or after you were assigned as a program director?

Yes/Which Ones?

No/Why Not?

APPENDIX B

INTERVIEW LETTERS

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE SYSTEMS COMMAND
ANDREWS AIR FORCE BASE, DC 20334

1 April 1983

TO WHOM IT MAY CONCERN

I would like to solicit your support for the Thesis effort that Lieutenant Pam McGinty, a graduate student at the Air Force Institute of Technology, is conducting. She will be conducting interviews with Program Directors within the Air Force Systems Command. Through these interviews she will compile information concerning what education is available in weapons systems acquisition courses, actually being utilized by program management personnel, the adequacy of this education in meeting SPO objectives, and any suggestions you may have for improvements in the present education system. Lieutenant McGinty's Thesis should be valuable to all personnel in Program Management. She is attempting to determine the effectiveness of our Program Management education so we will have a clearer picture of the direction we need to go in improving the career development of our personnel in Program Management. Your support will be greatly appreciated.

Louis W. Smith

DR. LOUIS W. SMITH
Director of Education and Training
Headquarters Air Force Systems Command

DEPARTMENT OF THE AIR FORCE
AIR FORCE INSTITUTE OF TECHNOLOGY (ATC)
WRIGHT-PATTERSON AIR FORCE BASE, OH 45433

8 April 1983

Major General W. E. Thurman
Deputy For B-1B
Wright-Patterson AFB, Ohio 45433

General Thurman

Sir, our appointment is confirmed for 1600 hours on April 22, 1983. The interview will last approximately 25 minutes.

I am a graduate student at AFIT in the School of Systems and Logistics. This interview will contribute signigicantly to my Thesis effort. The objectives of the interview are to determine from your point of view what training is being used to prepare Program Management personnel to handle their responsibilities in the SPO, the adequacy of this training, and any improvements that should be made to this training. If you have a formal training plan for your SPO I would appreciate a copy of it to use with my Thesis. I am attaching a copy of the Interview Format so that you will have an idea of the questions I will be asking. Thank you for your help.

Pamela S. McGinty

Pamela S. McGinty, Lieutenant, USAF
Student, Air Force Institute of Technology,
School of Systems and Logistics

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BIOGRAPHICAL SKETCH OF THE AUTHOR

First Lieutenant Pamela S. McGinty was born in West Palm Beach, Florida on August 23, 1959. She graduated from Grand Prairie High School, Grand Prairie, Texas in 1977. She then attended the United States Air Force Academy in Colorado from which she received a Bachelor of Science degree in International Affairs with a regular commission in the Air Force in 1981. After serving as a Cost Analysis Officer at Space Division, Los Angeles Air Force Station, California for one year, she attended the Air Force Institute of Technology and received her Master of Science degree in Systems Management.


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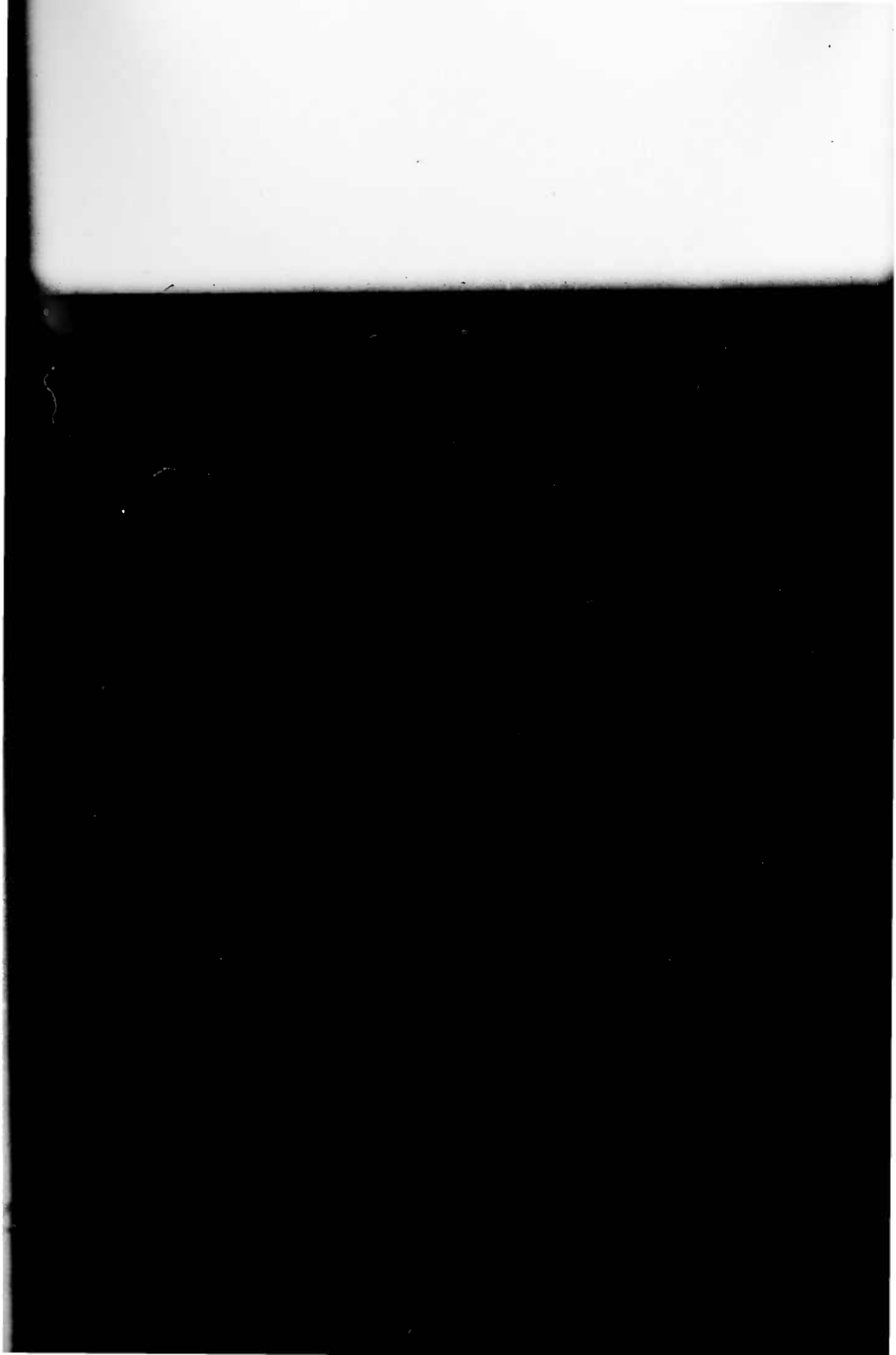

Yes/Why?

No/Why Not?